

REMARKS

There are now pending in this application claims 10-16, of which claim 10 is the sole independent claim.

In view of the newly presented claims and the following remarks, favorable reconsideration and allowance of the above application is respectfully sought.

As now set forth in independent claim 10, the invention is directed to a vibration type driving unit which comprises a vibration element consisting of an elastic member to which an electro-mechanical energy conversion element is fixed, a moving element which is in contact with a surface of the vibration element, a supporting member which penetrates inside of the vibration element to support the vibration element and a fitting member which fits into the supporting member to fix the vibration element to the supporting member. The invention is further characterized in that the vibration element is in contact with the moving element at a surface of the moving element opposite to a surface of the moving element to which the electro-mechanical conversion element is fixed, a projection portion is formed on the surface of the vibration element with which the moving element is in contact and the projection portion faces an inner diameter portion of the moving element, and generates, when an alternating signal is applied onto the electro-mechanical energy conversion element, a bending vibration of which a displacement direction is different from that generated on the surface of the vibration element with which the moving element is in contact. The invention is further characterized in that the electro-mechanical energy conversion element is disposed around the fitting member.

The claims previously on file were rejected under 35 U.S.C.. § 102, as being anticipated by one of Tsukimoto (U.S. Patent No. 6,781,283) and Tsukimoto (U.S. Patent No.

5,886,455). Given the recitation of the invention as now set forth in independent claim 10, the rejections are respectfully traversed.

Tsukimoto '283 is directed to a vibration wave driving apparatus that includes a mechanical energy conversion element that is sandwiched and fixed between elastic members. In the arrangement of this reference, the electro-mechanical energy conversion element 3,53 is sandwiched by and fixed at a position between two of elastic members 2,52,55. In this arrangement, one of the elastic members 2,52 is also used as a fitting portion for fixing the vibration element and a supporting member 6,56, which penetrates into the inside of a vibration element. However, Tsukimoto '283 does not teach or suggest the additional features recited in the invention as now set forth in claim 10.

More specifically, the invention as recited in claim 10 seeks to further miniaturize the vibration type driving unit such as that shown in Tsukimoto '283. This is done by arranging the electro-mechanical energy conversion element 4 to be located around the fitting member or portion 6 which is used to fix the supporting member penetrating into the vibration member to the vibration member, thereby making it possible to shorten the entire length of the vibration member in a direction along which the elastic members and electro-mechanical energy conversion element are stacked. Such features are neither taught nor suggested by the applied reference.

Tsukimoto '455 is directed to a vibration member and generates a first bending vibration on a first plane and a second bending vibration on a second plane traverse to the first plane. In Tsukimoto '455 the vibration element contacts with the moving element at a surface provided at a position opposite to a surface to which the electro-mechanical energy conversion

element contacts. However, there is no specific teaching or suggestion that the projection portion is formed on the surface of the vibration element with which the moving element is in contact. In addition, Tsukimoto '455 fails to teach or suggest that a part of the vibration element which is opposite to the inner diameter portion of the moving element generates a bending vibration of which displacement direction is different from that generated on the surface of the vibration element, with which the moving element is in contact, by an alternating signal onto the electro-mechanical energy conversion element. Thus it is not seen how Tsukimoto '455 teaches or even suggests the invention as recited in claim 10.


For the foregoing reasons, Applicant respectfully submits that claim 10 is patentable over the applied art of record.

The remaining claims in the above application are dependent claims which depend either directly or indirectly from claim 10 and are therefore patentable over the art of record for reasons noted above with respect to claim 10. In addition, each recite features of the invention still further distinguishing it from the applied art. Favorable and independent consideration thereof is respectfully sought.

Applicant respectfully submits that all outstanding matters in the above application have been addressed and that this application is in condition for allowance. Favorable reconsideration and early passage to issue of the above application are respectfully sought.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'LAS', is written over a horizontal line.

Lawrence A. Stahl
Attorney for Applicant
Registration No. 30,110

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

LAS:eyw

DC_MAIN 189716v1